```
$%^Other;HighlightOn=**;HighlightOff=**;
Trying 01082...Open
PLEASE ENTER HOST PORT ID:
PLEASE ENTER HOST PORT ID:x
LOGINID:d185jfr
PASSWORD:
TERMINAL (ENTER 1, 2, 3, 4, OR ?): 3
       Welcome to MESSENGER (APS Text) at USPTO
   The USPTO production files are current through:
   July 13,1999 for U.S. Patent Text Data.
    July 13,1999 for U.S. Current Classification Data.
   July 13,1999 for U.S. Patent Image Data.
     * PLEASE USE 305-9000 FOR NEW TELEPHONE NUMBER *
 * More U.S. patent data is now available on APS. The new
 * USOCR file contains patents issued in 1970, plus some *
 * patents that were missing from the USPAT file. See the
 * Patents News Folder under the Public Folders in e-mail for *
 * more information on using the new file. Thank you.
 ********
 * DISCLAIMER:
 * Neither the United States Government, nor any agency
 * thereof, nor any of their contractors, subcontractors or *
 * employees make any warranty, expressed or implied,
 * including any warranty of marketability of fitness for a *
  particular purpose; nor assumes any legal liability or
 * responsibility for any party's use, or the results of
 * such, of the data.
          Help Desk --> 703-305-9000
    The Help Desk is staffed for APS support 7 days/week.
    Monday through Friday: 6:30am - 9:00pm
     Saturday, Sunday, Holidays: 8:30am - 5:00 pm
    The Help Desk staff at this number will handle all APS *
   related questions. *
    >>>>>> NEW SUNDAY HOURS !!! <<<<<<<
    The APS is available:
        6:30am - 9:00pm Monday through Friday
        7:30am - 5:00pm Saturday, Sunday, Holidays
     APS is unavailable Thanksgiving Day, Christmas Day, *
    and New Year's Day.
FILE USPAT ENTERED AT 11:10:01 ON 15 JUL 1999
      U.S. PATENT TEXT FILE
 * THE WEEKLY PATENT TEXT AND IMAGE DATA IS CURRENT
 * THROUGH July 13,1999
```

```
=> s shigella
      2148 SHIGELLA
=> s mammal?
    50835 MAMMAL?
=> s 11(p)12
       126 L1(P)L2
=> s entry or entered or enter
    169942 ENTRY
    101729 ENTERED
    240962 ENTER
   398399 ENTRY OR ENTERED OR ENTER
=> s 14(p)13
        3 L4(P)L3
L5
=> s aspartate(4a)dehydrogenase
     4164 ASPARTATE
     7293 DEHYDROGENASE
       145 ASPARTATE(4A)DEHYDROGENASE
=> s 11 and 16
       10 L1 AND L6
L7
=> d
1. 5,922,583, Jul. 13, 1999, Methods for production of recombinant plasmids; Mohamad A. Morsey, 435/69.1, 91.1, 91.4, 183, 252.3, 252.33,
320.1, 325; 536/23.1, 23.7 [IMAGE AVAILABLE]
=> d his
  (FILE 'USPAT' ENTERED AT 11:10:01 ON 15 JUL 1999)
L1
      2148 S SHIGELLA
      50835 S MAMMAL?
L2
L3
       126 S L1(P)L2
     398399 S ENTRY OR ENTERED OR ENTER
L4
L5
       145 S ASPARTATE(4A)DEHYDROGENASE
L6
        10 S L1 AND L6
L7
=> s vaccine
      5897 VACCINE
1.8
=> s 11 and 12
L9
       741 L1 AND L2
=> s aspartate
L10 4164 ASPARTATE
=> s 19 and 110
```

L11 44 L9 AND L10

=> s asd

L12 449 ASD

=> s 18 and 11

L13 241 L8 AND L1

=> s dap

L14 1739 DAP

=> s 113 and 114

L15 15 L13 AND L14

=> s asd

L16 449 ASD

=> s 115 and 116

L17 11 L15 AND L16

=> d 1-11

- 1. 5,922,583, Jul. 13, 1999, Methods for production of recombinant plasmids; Mohamad A. Morsey, 435/69.1, 91.1, 91.4, 183, 252.3, 252.33, 320.1, 325; 536/23.1, 23.7 [IMAGE AVAILABLE]
- 2. 5,877,159, Mar. 2, 1999, Method for introducing and expressing genes in animal cells and live invasive bacterial vectors for use in the same; Robert J. Powell, et al., 514/44; 424/93.1, 93.21, 93.4, 184.1; 435/69.1, 235.1, 320.1, 472, 480; 536/24.1 [IMAGE AVAILABLE]
- 3. 5,855,880, Jan. 5, 1999, Avirulent microbes and uses therefor; Roy Curtiss, III, et al., 424/93.2, 93.48, 184.1, 200.1, 235.1, 257.1, 258.1; 435/252.3, 252.33, 320.1, 879 [IMAGE AVAILABLE]
- 4. 5,855,879, Jan. 5, 1999, Avirulent microbes and uses therefor; Roy Curtiss III, 424/93.2, 93.48, 184.1, 200.1, 235.1, 257.1, 258.1; 435/252.3, 252.33, 320.1, 879 [IMAGE AVAILABLE]
- 5. 5,840,483, Nov. 24, 1998, Method of maintaining a desired recombinant gene in a genetic population of cells; Roy Curtiss, III, 435/6, 252.3, 252.33, 320.1 [IMAGE AVAILABLE]
- 5,824,538, Oct. 20, 1998, **Shigella** vector for delivering DNA to a mammalian cell; Arthur A. Branstrom, et al., 435/252.1; 424/93.2; 435/245, 252.3, 455, 822 [IMAGE AVAILABLE]
- 7. 5,672,345, Sep. 30, 1997, Selective maintenance of a recombinant gene in a population of **vaccine** cells; Roy Curtiss, III, 424/93.2; 435/69.1, 71.2, 252.3 [IMAGE AVAILABLE]
- 8. 5,424,065, Jun. 13, 1995, Vaccines containing avirulent phop-type microorganisms; Roy Curtiss, III, et al., 424/93.2, 93.48, 184.1; 435/69.1, 71.1, 252.3, 252.8 [IMAGE AVAILABLE]
- 5,387,744, Feb. 7, 1995, Avirulent microbes and uses therefor: Salmonella typhi; Roy Curtiss, III, et al., 424/258.1; 435/252.3, 252.33, 320.1, 879 [IMAGE AVAILABLE]
- 10. 5,294,441, Mar. 15, 1994, Avirulent microbes and uses therefor: salmonella typhi; Roy Curtiss, III, 424/200.1, 235.1, 258.1; 435/252.3,

252.33, 320.1, 879 [IMAGE AVAILABLE]

- 11. 4,888,170, Dec. 19, 1989, Vaccines obtained from antigenic gene products of recombinant genes; Roy Curtiss, III, 424/200.1, 244.1, 258.1; 435/252.3, 252.8 [IMAGE AVAILABLE]
- => s invasive
- L18 10931 INVASIVE
- => d his

```
(FILE USPAT ENTERED AT 11:10:01 ON 15 JUL 1999)
      2148 S SHIGELLA
      50835 S MAMMAL?
L2
L3
      126 S L1(P)L2
     398399 S ENTRY OR ENTERED OR ENTER
1.4
L5
       3 S L4(P)L3
      145 S ASPARTATE(4A)DEHYDROGENASE
L6
       10 S L1 AND L6
L7
      5897 S VACCINE
L8
      741 S L1 AND L2
L9
      4164 S ASPARTATE
L10
L11
       44 S L9 AND L10
L12
       449 S ASD
       241 S L8 AND L1
L13
L14
       1739 S DAP
```

- => s 11 and 118 and 18
- L19 64 L1 AND L18 AND L8

15 S L13 AND L14 449 S ASD

11 S L15 AND L16 10931 S INVASIVE

=> s 119 and 114

L15

L16 L17

L18

- L20 10 L19 AND L14
- => s 120 and 116
- L21 8 L20 AND L16
- => d 1-8
- 1. 5,877,159, Mar. 2, 1999, Method for introducing and expressing genes in animal cells and live **invasive** bacterial vectors for use in the same; Robert J. Powell, et al., 514/44; 424/93.1, 93.21, 93.4, 184.1; 435/69.1, 235.1, 320.1, 472, 480; 536/24.1 [IMAGE AVAILABLE]
- 2. 5,855,880, Jan. 5, 1999, Avirulent microbes and uses therefor; Roy Curtiss, III, et al., 424/93.2, 93.48, 184.1, 200.1, 235.1, 257.1, 258.1; 435/252.3, 252.33, 320.1, 879 [IMAGE AVAILABLE]
- 3. 5,855,879, Jan. 5, 1999, Avirulent microbes and uses therefor; Roy Curtiss III, 424/93.2, 93.48, 184.1, 200.1, 235.1, 257.1, 258.1; 435/252.3, 252.33, 320.1, 879 [IMAGE AVAILABLE]
- 4. 5,824,538, Oct. 20, 1998, **Shigella** vector for delivering DNA to a mammalian cell; Arthur A. Branstrom, et al., 435/252.1; 424/93.2; 435/245, 252.3, 455, 822 [IMAGE AVAILABLE]
- 5. 5,424,065, Jun. 13, 1995, Vaccines containing avirulent phop-type microorganisms; Roy Curtiss, III, et al., 424/93.2, 93.48, 184.1; 435/69.1, 71.1, 252.3, 252.8 [IMAGE AVAILABLE]

- 6. 5,387,744, Feb. 7, 1995, Avirulent microbes and uses therefor: Salmonella typhi; Roy Curtiss, III, et al., 424/258.1; 435/252.3, 252.33, 320.1, 879 [IMAGE AVAILABLE]
- 7. 5,294,441, Mar. 15, 1994, Avirulent microbes and uses therefor: salmonella typhi; Roy Curtiss, III, 424/200.1, 235.1, 258.1; 435/252.3, 252.33, 320.1, 879 [IMAGE AVAILABLE]
- 8. 4,888,170, Dec. 19, 1989, Vaccines obtained from antigenic gene products of recombinant genes; Roy Curtiss, III, 424/200.1, 244.1, 258.1; 435/252.3, 252.8 [IMAGE AVAILABLE]
- => d his

```
(FILE USPAT ENTERED AT 11:10:01 ON 15 JUL 1999)
    2148 S SHIGELLA
```

- Ll
- 50835 S MAMMAL? L2
- L3 126 S L1(P)L2
- 398399 S ENTRY OR ENTERED OR ENTER L4
- L5 3 S L4(P)L3
- 145 S ASPARTATE(4A)DEHYDROGENASE L6
- L7 10 S L1 AND L6
- 5897 S VACCINE L8
- L9 741 S L1 AND L2
- L10 4164 S ASPARTATE
- L11 44 S L9 AND L10
- 449 S ASD L12
- L13 241 S L8 AND L1
- 1739 S DAP L14
- L15 15 S L13 AND L14
- L16 449 S ASD
- 11 S L15 AND L16 L17
- L18 10931 S INVASIVE
- 64 S L1 AND L18 AND L8 L19
- L20 10 S L19 AND L14
- L21 8 S L20 AND L16
- => logoff y
- U.S. Patent & Trademark Office LOGOFF AT 11:21:15 ON 15 JUL 1999